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Fall 2008

CS 209: Computer Programming for Business II

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Syllabus

Course Information

Course title: Computer Programming for Business II

Course number: CS 209 Section 01, Lab Section 01

Course discipline: Computing Sciences

Course description: CS 209 is the second in a sequence of two programming classes required for MIS majors. This course will continue teaching students to the basic concepts of programming. Examples are from business applications and emphasis is on problem solving with the computer as a tool.

Course date: Wednesday, September 10, 2008 through Wednesday, November 19, 2008

Location: 152A Russ Engineering Center

Meeting day(s): Wednesday

Meeting time(s): 6:05 - 9:35 (includes lecture and lab)

Prerequisite(s): CS 208 or equivalent.

Instructor Information

Name: David M. Hutchison

Email: david.hutchison@wright.edu

Office location: 152A

Office hours: Before and after class, as needed or by appointment

Biography: B.S. Computer Science, Wright State University, 1990
M.B.A. Project Management, Wright State University, 1995
Previous (1997-2001) and current instructor of CS 208 and CS 209
Instructor of various independent Java, C programming, and Oracle-related Java courses

Teaching assistants: TBD

Course Goal

Course goals: This course, in conjunction with CS 208, is designed to help students achieve a high degree of proficiency in intermediate level programming skills.

Course Policies

Introduction: All course policies are subject to change.

Course Requirements

Requirements: This course assumes successful (i.e., passing) completion of CS 208 or

equivalent. You are required to have a thumb drive or similar media. Although not required, a backup is highly recommended as well.

Course Schedule

Schedule: The course schedule presented in the WebCT Calendar is *tentative*. We will do our best to adhere to this schedule, but events beyond our control (e.g., weather) may impact the dates and content. I will do my best to not slip any exam dates.

Class Attendance

Policy: It is your responsibility to attend all classes - attendance will not be taken. Since this class is held only once a week, you stand to miss out on a lot of information, quizzes, labs, project hints, etc. if you choose to skip a class. Of course, prior notice of your missing class would be appreciated.

Grading Policy

Policy: Grading is on a straight 10-point increment scale. That is, >90 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and <60 is an F. Weights of exams, assignments, etc. are as follows:

- 25% - Mid-term exam
- 25% - Final exam
- 25% - Programming assignments
- 15% - Quizzes
- 10% - In-class labs

Remember, your grade is weighted - it is *not* a straight points-based computation.

Academic Dishonesty

Policy: Violators will receive an F for the course and will be reported to the university - official university policy will be followed ([Click here](#) for the policy). You are required to work individually on your programming assignments. You are permitted to exchange ideas with your peers, but you are not permitted to use someone else's work. Additionally, you may not share your work with someone else. If you choose to violate these rules, then all students involved will suffer the consequences.

Course Lab

Lab: You must be enrolled in the lab associated with this class (i.e., CS 209 lab, section 01). The WebCT site for the lab will *not be used*.

In-class Lab Assignments

Lab assignments will be provided during each lab session. These assignments are to be worked on during lab and submitted prior to the end of the night's lab session, regardless of whether or not they are complete. These assignments will consist of straightforward coding problems such as writing source code for incomplete programs, or designing a complete Java application. There will be five lab assignments. Each lab will be worth 50 points.

Course Exams

Exams: All students are required to take both exams. Make-up exams are only given on a case-by-case basis. If you are unable to attend an exam, you are required to provide an acceptable and documented reason *prior* to the exam.

Course Quizzes

Quizzes: Five quizzes will be given during the quarter. Makeups will not be allowed without advanced coordination with the instructor (and no one other than the instructor).

Programming Assignments

Assignments: There will be three programming assignments over the course of the quarter. Each of these assignments is worth 100 points, each will state the required due date, and each will state the requirements for that assignment (e.g., provide a design, test cases, source code, etc.). You are required to earn at least 75% of the total points for all assignments. Failure to reach 75% of the total points will result in failure of the entire course. Late assignments will only be accepted for documented reasons, previously arranged with the instructor (i.e., *not* the lab TA). Please see the lab TA for a description of how points will be allocated for each programming assignment.

Textbook

Required reading: *Starting Out with Java: From Control Structures through Data Structures*, Tony Gaddis and Godfrey Muganda, Addison Wesley, 1 Pap/Cdr edition (August 14, 2006), 978-0321421029

Midterm Exam

Date: October 15, 2008
Content: Modules 1-5 (i.e., Chapters 5, 6, and 8).

Final Exam

Date: November 19, 2008 - 8:00pm til 10:00pm
Content: Comprehensive, with a concentration on modules 6-9 (i.e., Chapters 9, 11, and 12). I will do my best to schedule a review session from 7:00 til 8:00 that

evening. You are welcome to ask any questions during the review session. My intent of that review session is to allow you to ask any last minute questions about the material on the final exam. This time is for you - use it!

Module 1

Date: Wednesday, September 10, 2008

Topics:

- Course Overview
- Methods

Readings: Gaddis Chapter 5

Module 2

Date: Wednesday, September 17, 2008

Topics:

- Classes and objects
- Building a simple class
- Instance fields and methods

Readings: Gaddis, Chapter 6

Module 3

Date: Wednesday, September 24, 2008

Topics:

- Constructors
- Overloading methods and constructors
- Scope of instance fields

Readings: Gaddis, Chapter 6

Module 4

Date: Wednesday, October 1, 2008

Topics:

- Introduction to arrays
- Processing array elements
- Copying arrays
- Passing arrays as arguments to methods
- Useful array algorithms
- Returning arrays from methods
- String arrays

Readings: Gaddis, Chapter 8

Module 5

Date: Wednesday, October 8, 2008

- Topics:
- Searching arrays using the Collections framework
 - Two dimensional arrays
 - Ragged arrays
 - Arrays with 3+ dimensions
 - Command line arguments and arrays
 - The ArrayList class

Readings: Gaddis, Chapter 8

Module 6

Date: Wednesday, October 15, 2008

- Topics:
- Static class members
 - Passing objects as arguments to methods
 - Returning objects from methods
 - The toString method
 - The equals method
 - The 'this' reference
 - Garbage collection
 -

Readings: Gaddis, Chapter 9

Module 7

Date: Wednesday, October 22, 2008

- Topics:
- Inheritance
 - The "is a" relationship
 - The superclass constructor
 - Overriding methods
 - Access modifiers

Readings: Gaddis, Chapter 11

Module 8

Date: Wednesday, October 29, 2008

- Topics:
- Multiple layers of inheritance
 - The Object class
 - Polymorphism
 - The instanceof operator
 - Abstract classes
 - Interfaces

Readings: Gaddis, Chapter 11

Module 9

Date: Wednesday, November 5, 2008

Topics:

- Handling exceptions
- The Exception class
- Polymorphic references to exceptions
- Handling multiple exceptions
- The 'finally' clause
- The stack trace
- When an exception is not caught
- Checked and unchecked exceptions
- Throwing exceptions

Readings: Gaddis, Chapter 12

Overflow

Lesson: Overflow

Date: Wednesday, November 12, 2008

Objectives or Goals: This class is basically a buffer or overflow for the 9 modules of this course. I'm willing to bet that we'll need it!